

Notice of Allowability

Application No.

09/940,904

Applicant(s)

GAO, YANG

Examiner

Art Unit

James S. Wozniak

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/21/2005.
2. ☒ The allowed claim(s) is/are 1,2,4-20,22-36 and 42-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 9/27/2005, the applicant has submitted an amendment, filed 12/21/2005, amending claims 1, 2, and 19. The applicant's comments (Amendment, Pages 10-11) have been fully considered and claims 1-2, 4-20, 22-36, and 42-47 are allowable over the prior art of record for the reasons given below.

Allowable Subject Matter

2. **Claims 1-2, 4-20, 22-36, and 42-47** are allowable over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

With respect to **Claims 10 and 28**, the prior art of record fails to explicitly teach or fairly suggest a multi-rate speech coding method and system featuring fixed and adaptive codebooks, wherein the fixed codebook is divided into two or more subcodebooks with varying pulse formats, that applies a pitch enhancement coefficient (calculated using a pitch lag, enhancement coefficient, and a selected codevector) to a first power for pulses one pitch lag away from a main pulse and to the second power for pulses two pitch lags away from the main pulse. The prior art of record also does not explicitly teach or fairly suggest the above functions in combination with a pitch enhancement that is applied forward and backward and is calculated dependent upon a

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particular subcodebook and using a different formula for each subcodebook as shown in Table 1 of the specification.

Although Swaminathan et al (*U.S. Patent: 5,596,676*) teach use of a fixed codebook having two subcodebooks, a process for subcodebook selection, and an applied fixed codebook gain (*Col. 15, Lines 15-28; Col. 21, Lines 18-48; and Col. 11, Lines 16-33*), Swaminathan fails to teach applying a pitch enhancement coefficient that is applied forward and backward to a first power for pulses one pitch lag away from a main pulse and to the second power for pulses two pitch lags away from the main pulse.

Thus, Claims 10 and 28 are allowable over the prior art of record.

Claims 1-2, 4-9, 11-20, 22-27, 29-36, and 42-47 further limit allowed independent claims, and thus are also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
2/1/2006


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600